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 Serial Number: 10/574,609
 Dkt: 158.0001USWO

Serial Number: 10/574,609 Filing Date: April 5, 2006

Title: Precision Desorbing (Detachable) Metal Sheet Bend Angle Adjustment Device

Remarks

Claims 6-8, 10 and 13 have been canceled. Claim 4 has been amended to more particularly point out the interrelationship of the recited elements. Support for the amendments to claim 4 can be found, for example, at paragraphs [0015], [0017], and [0021] of the published application (US 2007/0074555) and in Figures 3 and 4. Claims 5, 9, and 11 have been amended to depend from claim 4, rather than canceled claim 1. Claim 11 has also been amended to improve syntax. New claims 14 and 15 are supported by the disclosure in the published application, for example, at paragraph [0021]. Thus, no new matter is added by the amendments to the claims.

Drawings

The Examiner noted that no drawings were supplied with the application. Attached please find replacement figures.

Amendment to the Abstract

The Examiner indicated that the amendment to the Abstract submitted on October 6, 2009 was not sufficient. Attached hereto is an abstract provided on a separate sheet.

Objections to the Disclosure

The Examiner objected to the disclosure as not following the guidelines provided in 37 CFR 1.77(b) regarding section headings. The attached substitute specification includes appropriate section headings.

Objections to the Drawings

The Examiner objected to the drawings as not showing the "top guide groove" recited in claim 4. The term "top guide groove" has been deleted from claim 4, thus obviating this objection.

Rejections under 35 U.S.C. § 112, second paragraph

Claims 4-13 were rejected under 35 U.S.C. § 112, second paragraph as indefinite. In

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particular, claim 4 was rejected as providing no structural correlation to the recited elements. Applicants respectfully submit that the amendments to claim 4 overcome this rejection.

Rejections under 35 U.S.C. § 102(b)

Russell (US 4,736,612)

Claim 4 was rejected under 35 U.S.C. § 102(b) as anticipated by Russell (US 4,736,612). Applicants respectfully submit that the amendments to the claims overcome this rejection.

As amended, claim 4 is directed towards a detachable metal sheet bend angle adjustment assembly, which includes a lifter plate, a wedge plate, an upper positioning frame having a rotary dial with an adjustment screw, a pushing coil spring and a ring spring. As described in the specification and recited in claim 4, the wedge plate is slideably mounted to the support plate and configured to receive the adjusting screw. Clockwise rotation of the adjusting screw advances the wedge plate and lifts the lifter plate. Counterclockwise rotation of the adjusting screw in a second direction retracts the wedge plate and lowers the lifter plate. Furthermore, the claimed invention includes a pushing coil, which is configured to engage the rear side face of the wedge plate opposite the rotary dial and counterbalance the force generated by the rotation of the adjusting screw. The ring spring is configured to reduce stress caused by the massive pressure on the die during the bending process.

In addition to allowing the wedge plate to be easily and controllably retracted, the pushing coil improves precision and reduces the tolerances for the device. In fact, the precision of the device allows for the use of graduated ruler marks that correspond to the rotation angle of the rotary dial, to determine the precise movement of the lifter plate (see, paragraph [0021] of the published application).

In contrast, the device disclosed by Russel does not include a counterbalancing pushing coil spring. Instead, the surface of the wedge means (25) opposite the rotatable "through bolt means" (50) engages a cylindrical threaded indicator means (60). The threaded indicator means (60) does not provide any counterbalancing force against the wedge means. Rather, the threaded indicator means includes a scale means that will indicate the wedge travel by one rotation of the through bolt means (see, Russell at column 4, lines 54-66 and column 5, lines 44-57). Thus, in

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contrast to the claimed invention, the relationship between the rotation angle of the rotary dial and the movement of the lifter plate is not directly correlated. Rather, only the linear movement

of the wedge means is recorded. Furthermore, nothing in Russell teaches or suggests the use of a

ring spring to reduce stress on the die during the bending process.

Since nothing in Russell teaches or suggests the use of a counterbalancing pushing coil or

a ring spring, Applicants respectfully request withdrawal of this rejection.

Pearson et al (US 4,426,873)

Claim 4 was rejected under 35 U.S.C. § 102(b) as anticipated by Pearson et al. (US

4,426,873). Applicants respectfully submit that the amendments to the claims overcome this

rejection.

As discussed above, the claimed invention includes a ring spring installed within the

middle chamber of the through hole in the lifter plate to reduce stress on the die during the

bending process. Applicants therefore request withdrawal of this rejection.

Summary

In view of the above amendments and remarks, Applicant respectfully requests a Notice

of Allowance. If the Examiner believes a telephone conference would advance the prosecution

of this application, the Examiner is invited to telephone the undersigned at the below-listed

telephone number.

Please grant any extension of time, if necessary for entry of this paper, and charge any fee

due for such extension or any other fee required in connection with this paper to Deposit

Account No. 50-3688.

Respectfully Submitted,

Date August 14, 2009 By /Melissa Jean Pytel/

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